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GOVERNMENT ASSISTANCE AND THE REHABILITTION OF THE EXISTING HOUSING STOCK: RATIONALE AND CONCEPTUAL FRAMEWORK

by

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I. Introduction: Some Issues and Non-Issues in Residential Rehabilitation and Renovation in Canada

Canada's 8.5 million housing units represent an exceptionally valuable national resource. Almost half of this stock is now thirty years old or older. Moreover, given the great durability of the housing resource (if properly maintained), we can expect to get reasonable quality housing services from the stock for 75-100 years. The key is the continual maintaining and upgrading of the stock.

Part of such stock maintenance and rehabilitation is a function of the quality of the stock as it currently exists. Another part of the maintenance and rehabilitation issue relates to the environment within which the stock is located both the local neighbourhood environment and the larger urban, regional and national picture as well.

Immediately below I will outline a number of issues that impinge upon the rehabilitation and maintenance of the existing stock of housing. I also want to set out several non-issues to further focus the discussion. Taken together these set the framework for the structure and argument of the paper. The principal theme of the argument is the centrality of the expectations of owners in the proper upkeep of the stock, and the role of government in framing these expectations.

Some Issues

The first issue has already been alluded to, namely the efficient use of our scarce and expensive housing capital. Given the value of this resource, broadly defined to include community infrastructure and services as well as housing *per se*, wasteful use of the resource, either through under utilization or through neglectful maintenance, cannot be accepted. The economic and social costs are too high.

Second, and more broadly, we must seek to provide for high quality and stable community environments (both urban and rural). Without such high quality environments it will be difficult, if not impossible, to maintain suitable levels of demand for stocks of housing and decay could ensue.

Third, we must strive to maintain a diversity of households and a diversity of housing units. Diversity is a key element in stability and stability in turn is of central importance in forming positive expectations needed to maintain and rejuvenate the stock.

These three issues need to be seen in the context of the macro and micro environments of housing so that we can begin to understand the factors that impinge on the proper upkeep of the housing stock. In the end it is the proper appreciation and setting or guiding of these macro and micro factors that provides the most hospitable environment for maintaining and upgrading the stock of housing and community services.

There are four sets of macro factors that deserve attention here: demographic trends; economic trends; financing redevelopment and rehabilitation; government roles in influencing macro factors. We treat these briefly in turn.

Demographic trends: There are two particularly capricious demographic factors that greatly affect housing: migration and household formation.

Forecasting, or even merely analyzing, migration behaviour has been exceptionally difficult. International and interregional migration defy, to date, either satisfactory explanations or forecasts. The same is true for intraregional or intrametropolitan population movements. Unfortunately, in a country like Canada with a relatively stable aggregate population base and with an aging population, migration is one of the few sources of growth for housing markets. Without a growing or stable population, it is difficult to imagine highly localized housing markets having the required strength to build new houses and/or adequately maintain existing houses. The other potential source of growth for driving housing markets (both new and old) comes from household formation. Even with a static population we can easily envisage a situation where household formation increases because of the age-structure of the population (such as we have been experiencing during the past decade). In such a case we can need considerably more housing services from both the new and existing stock without adding people but having smaller average household sizes and therefore adding to households and the demand for housing (most Canadian central cities in fact experienced just such conditions during the 1971-1981 period where their populations grew slightly or not at all, yet households grew strongly as did housing demand and the number of housing units). Both migration and household forming behaviour are key macro factors which directly impact on the functioning and health of local housing markets yet which are exceedingly difficult to analyze let alone forecast. A similar observation holds for child-bearing and child-rearing behaviour which are closely related to household formation, which impact immediately and directly on the composition of units demanded and their location, and defies again, either analysis or prediction.

Economic trends: Closely related to population movements are employment shifts and once again our ability to comprehend and forecast these shifts, either among Canada's regions or within a given region, is extremely limited. The complex of factors impinging on employment location and growth is great ranging from random behavioural quirks of management, to climate, natural resources and public attitudes toward economic activities (e.g., unionization, environmental restrictions, local taxes, etc.). Combine this complexity with the radical structural changes that have been taking place in the Canadian economy (and western economies more generally), and we see that it is exceptionally difficult to understand and forecast the economic structure underlying any specific housing market. Taken together (and they cannot easily be separated) people/households and jobs/income are the driving forces for local housing markets. We must understand the nature and strength of national, regional and local economies if we are to understand the strength of local housing markets and this is a non-trivial chore at best. It is impossible at this juncture, for example, to assess the impacts of office technology, robotics, energy prices, work attitudes and ethics, to name just a few, on the health of Canada's major economic regions and the housing markets that reside within these regions. Additionally, the mobility of human and financial capital (guaranteed under our new Canadian Charter of Rights and Freedoms) implies an ever-changing picture of economic health and hardship across our economic regions and among the numerous housing markets within Canada.

Financing Redevelopment and Rehabilitation: People and jobs are necessary conditions for a vigorous housing market. They are not sufficient however. Two other ingredients are needed: financial capital to move people and jobs into effective demand; government approvals and permits.

Here we consider the former, the latter being a micro factor to be discussed subsequently. Tied to the enormous structural changes that are occurring in the Canadian economy is an enormous need for capital to finance new resource development, upgrade infrastructure, retool old plants, and create totally new enterprises and industries. Mortgage funds will increasingly have to compete against growing capital demands from other sectors of the economy in light of the above. In addition, as we emerge from the current recession/depression needs for non-residential capital are likely to escalate dramatically putting pressure on residential mortgage funds. We combine this with the need to offset interest rate risk more efficiently in residential mortgage markets and some difficulties may well loom ahead for financing the renewal and rehabilitation of our housing stock. Lastly, even though there may be adequate funds for the residential mortgage market in the aggregate, it still may well be the case that spatial discrimination or imperfections (red-lining for example) might make getting these funds to needed housing markets very trying indeed. It is not hard to conceive of a situation where a particular older housing market is hit by declining population, a sluggish or declining economy and mortgage discrimination just as it requires these mortgage funds to rejuvenate its housing capital. Clearly therefore, both the global and local availability of residential mortgage capital might be in question in future seriously affecting housing stocks both nationally and in specific local markets and sub-markets.

Government and the Macro Environment of Housing Markets: The roles of governments are enormous in shaping the macro environment within which housing markets function. There are at least five major areas where government policies impact on this environment. First, tax policies can (and do) favour either owning or renting, either new construction or

maintenance of the existing stock, and either movers or non-movers (moving expenses are generally deductible). Second, governments affect housing markets directly either through demand stimuli (first time homeowner grants, subsidized mortgages, property tax reductions, etc.) and supply stimuli (servicing grants, MURB's, direct construction). Such demand/supply involvement clearly alters the normal functioning of these basic market forces which would occur in the absence of government direct involvement. Third, governments have enormous impacts on the national and regional and local economies of this country through the development of industrial strategies, infrastructure placement and subsidy (e.g. the Crow rate and its removal), direct involvement through Crown corporations and mixed public/private corporations, and of course through regional development policies and international trade and commercial policies. Fourth, and of possibly greatest importance, monetary policy directly and dramatically affects the supply of, and demand for, mortgage funds, and thus the robustness of housing markets both nationally and locally.

Turning to an overview of micro environmental factors (those factors affecting local markets and sub-markets) we see three elements that stand out.

The Composition of Households: The mix of households (size, age, income, stage in the life-cycle, marital status) has major consequences for the operation of housing markets at the local micro market level. Here we cannot speak about averages but must rather be explicitly concerned with the details of household demand since at this level of analysis all households are not homogeneous and mismatches with the standing stock can and do occur. Short run surges in demand of particular components of the household

mix can lead to significant shortages despite the fact that there may appear to be sufficient aggregate numbers of units to meet aggregate demands.

The Composition of the Housing Stock: As with the composition of households here we must be concerned with disaggregated details of the stock, its structural characteristics, tenure mix, and of course spatial distribution. We may very well have adequate numbers of units but they may be distributed spatially inappropriately to meet growth patterns, or they may be of the wrong size and tenure mix to accommodate future households. Forecasting micro supply and demand factors is critical but exceptionally difficult.

The Roles of Government: As in the case of macro environmental factors, when we turn to micro environmental factors we see that governments are again of major importance. Governments provide for zoning and subdivision regulations which constrain supply. They also place hard (roads, sewers and water) and soft (schools, recreation and parks, and social) services on the local landscape. Moreover, the planning of future transportation and water/sewer services significantly affects both future demand and supply patterns within the local housing market. Governments thus have a very significant ability to influence patterns of both supply and demand at the crucial housing submarket level.

Above, we have laid out the issues that are central to the problem at hand: the relationships between governments, the macro and micro environments within which housing markets operate, and the need to preserve, protect and efficiently use our valuable and scarce housing resources. As a society we must devote sufficient resources to our housing stock so that it is continuously rejuvenated and thus able to yield high quality and sustainable housing services over prolonged periods of time. This is only

possible through continual reinvestment by homeowners, investors and renters in the housing stock. All of which bring us to the principal point to be made in this paper: such reinvestment will only be possible and sustainable if investors (homeowners, absentee investors and renters) perceive the investment climate to be favourable so that their housing investments return them at least the same return as they could get in alternative forms of investment. Investor expectations and perceptions must be such that reinvestment continues to be seen as a viable proposition. It is here, in the area of investor expectations, perceived risk and investor confidence that government has perhaps the greatest role to play in trying to ensure that the stock of housing assets that has been accumulated by our society over many many decades is appropriately maintained and renewed. Accordingly, we will turn later to focus on government's roles in shaping such expectations as a primary focus for future government policy, which focus would allow and promote private reinvestment and the continued flow of high quality housing services from Canada's present stock of 8.5 million housing units, the vast majority of which are very likely to be with us for most of the next century.

Some Non-Issues

The terms residential rehabilitation and urban revitalization have created great excitement in the housing literature during the past half-decade (Downs, 1981; Goetze, 1979; Laska and Spain, 1980; Segal, 1980; and Solomon, 1980). The excitement is mostly centred in the United States where it has been hailed as a sign of changing fortunes for central cities and their housing stock. It is hoped that this resurgence of interest in central city housing and reinvestment in this stock augurs well for the

future and offers a welcome and long overdue respite from the past several decades. Specifically, the renewed interest in centrally located and older housing is anticipated to spell an end to several plagues that hit central cities in the previous two decades: urban blight and central city decline; demolitions and abandonments of older housing; and government induced destruction of housing stock through urban renewal and transportation (usually highways) investments.

The prevalence of these plagues and the obsession with studying them is largely irrelevant to us here in Canada and thus the observation here that they are "Non-Issues". It is important to stress this point early in the present paper since we must differentiate the issues facing Canadian and American cities from each other if we are to develop sensitive and appropriate policies to deal with issues of maintaining our housing stock. We must realize (Goldberg and Mercer, 1982) that problems of large-scale urban blight and central city decline and decay were not very prevalent in Canadian cities over the past several decades. Similarly, estimates of demolitions and abandonments in the U.S. run as high as 30% of each year's housing construction whereas 2-4% seems a better estimate for Canada (Skaburskis, 1978). Finally, the urban renewal programs in Canada had a considerably shorter duration (1964-69) in Canada than in the United States (1949-present), were on a much smaller scale and did less damage (Weicher, 1972; Solomon, 1974). Additionally, there was no national highway building program in Canada to parallel the National Défense Interstate Highway Acts of 1956 and 1962 and thus there was no similar scale destruction of central city housing and neighbourhoods, nor was there any similar dislocation of market forces in Canada such as that brought about by these massive transportation investments.

Putting all this together leads us to conclude that the issues facing U.S. cities and urban neighbourhoods were likely unique to the U.S. and hold little in the way of analogy for Canadian cities. The U.S. urban crisis, of which housing and urban decay are major components, is a U.S. and not a Canadian problem. Canadian cities appear to have a very different dynamic and therefore U.S. policies, programmes and research findings must be interpreted with extreme caution in a Canadian context (Goldberg and Mercer, 1982). In short, they are "Non-Issues".

One other non-issue that is prevalent both in Canada and the U.S. is the question of housing affordability. The non-issue raises its head frequently and proponents allege that housing prices and costs are outpacing income and ability-to-pay. The affordability issue is relevant in our present context because much of the older housing stock in Canada has been lower priced and therefore has provided affordable housing and continues to provide affordable housing. Too often the issue has been cloaked in terms of new housing (and single family housing at that) which distorts and misrepresents the issues to prove the assertion that affordability is a problem. It is not and has not been a problem (Goldberg, 1983 and Weicher, 1978) and need not concern us further as we look to issues that are relevant concerning the reuse and rehabilitation of the housing stock in Canada and government policies which can foster such careful stewardship of this scarce national resource.

The Argument and the Scope and Structure of the Paper

The argument made below is that expectations, perceptions of riskiness and investor confidence are fundamental building blocks for maintaining the existing housing stock and the neighbourhoods which it comprises. The roles

of government promoting positive and stable expectations and in removing riskiness associated with reinvestment in the housing will also be discussed in the context of the argument. It will be suggested as a general proposition that governments should remove market imperfections and provide the stability within which the housing stock can be maintained and upgraded with minimum risk and maximum return to investors and users. Policy ideas which enhance stable expectations and seek to minimize risky and disruptive actions will be put forward at the end.

The paper proceeds in the following manner to achieve this objective of providing policy suggestions rooted in the expectations argument. In the next section we explore the basic tenets of housing market operation in the ideal world of concepts. We then move on to discuss some market dysfunctions and imperfections and their impacts on rehabilitation and maintenance of the existing housing stock. Then, the role of expectations is introduced and discussed as is the impact of government on expectations and perceptions of risk and profitability. Finally, in the concluding section a range of policy suggestions is presented with the aim of providing a framework within which rehabilitation and upgrading of the housing stock can proceed in the most efficient manner.

II. Housing Market Function: The Ideal World of Theory

There are two interacting components of the housing market which need to be separated if we are to understand the market for the existing stock and for reinvesting in the existing stock. These components are: the existing stock itself; the flow of new units onto the market each time period (usually a year).

Two quite different models of stock-flow interaction have been put forward: the first sees the price being determined in the market for the stock and this price merely determines the volume of annual flow; the second sees the intersection of supply (marginal cost) and demand in the flow market determine price which then sets the value of the stock. These alternative models appear in Figures 1 and 2 below. Note that in Model I (The Stock-Flow Model) that the level of demand determines price since the stock is fixed (in the short run) and there is no supply response. In such circumstances expectations about the future value of the stock have a direct bearing on the level of demand: optimistic expectations will move demand up, while pessimistic ones will depress it. In Model II (The Marginal Cost Model) the value of the stock is completely at the mercy of the intersection of demand and supply in the new product market. Whereas in the Stock-Flow Model costs of construction were irrelevant (demand alone determined price), in the Marginal Cost Model the level of costs determines the location of the new supply curve and therefore directly influences price. Note however, that expectations can still affect levels of demand and therefore also price, although the effect is not as great and direct as it was in the Stock-Flow Model since there is an offsetting supply response which dampens to some extent (compared with the Stock Flow Model) the price impact of expectations and changes in demand.

Both of these models however greatly simplify and distort the situation. The Marginal Cost Model of New Supply and the Stock-Flow Model of Existing Supply do not operate in isolation. Rather they interact continuously, not just in the longer run as implied by each.

A model which depicts this interaction has been provided by Nowlan (1976) and appears below as Model III (A Hybrid Model) in Figure 3.

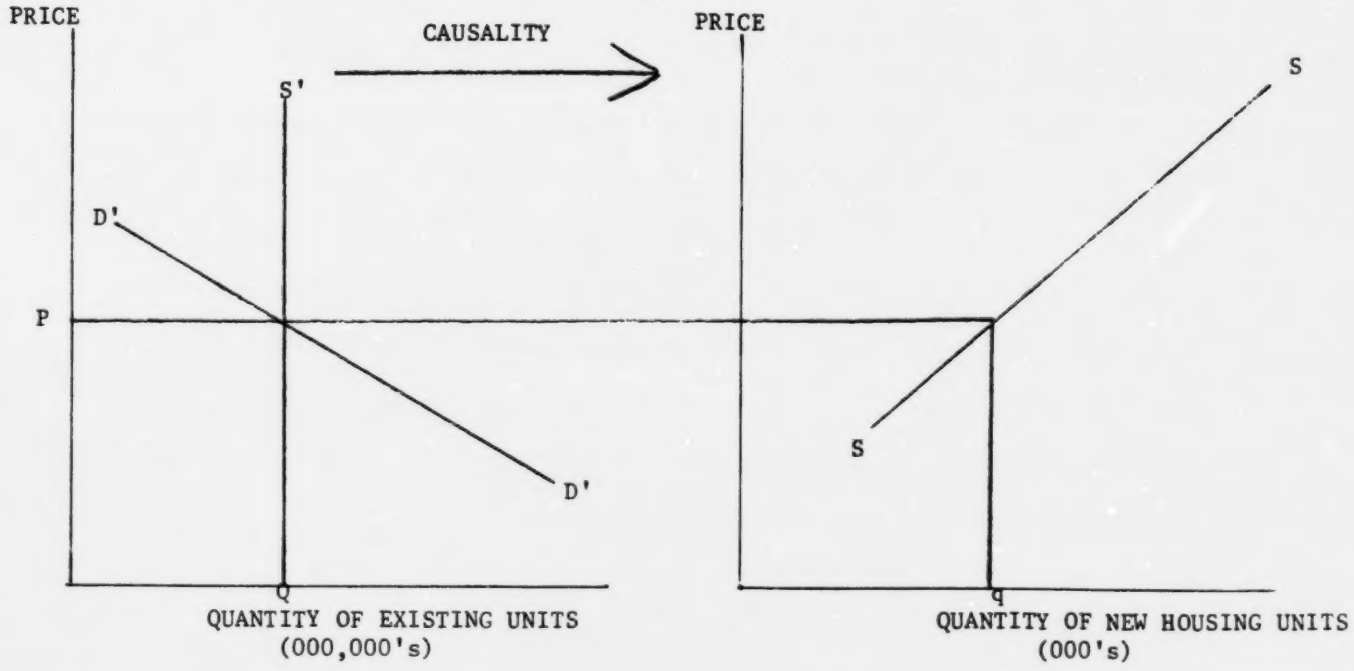

FIGURE 1

Stock-Flow Model of House Price Determination (MODEL I)

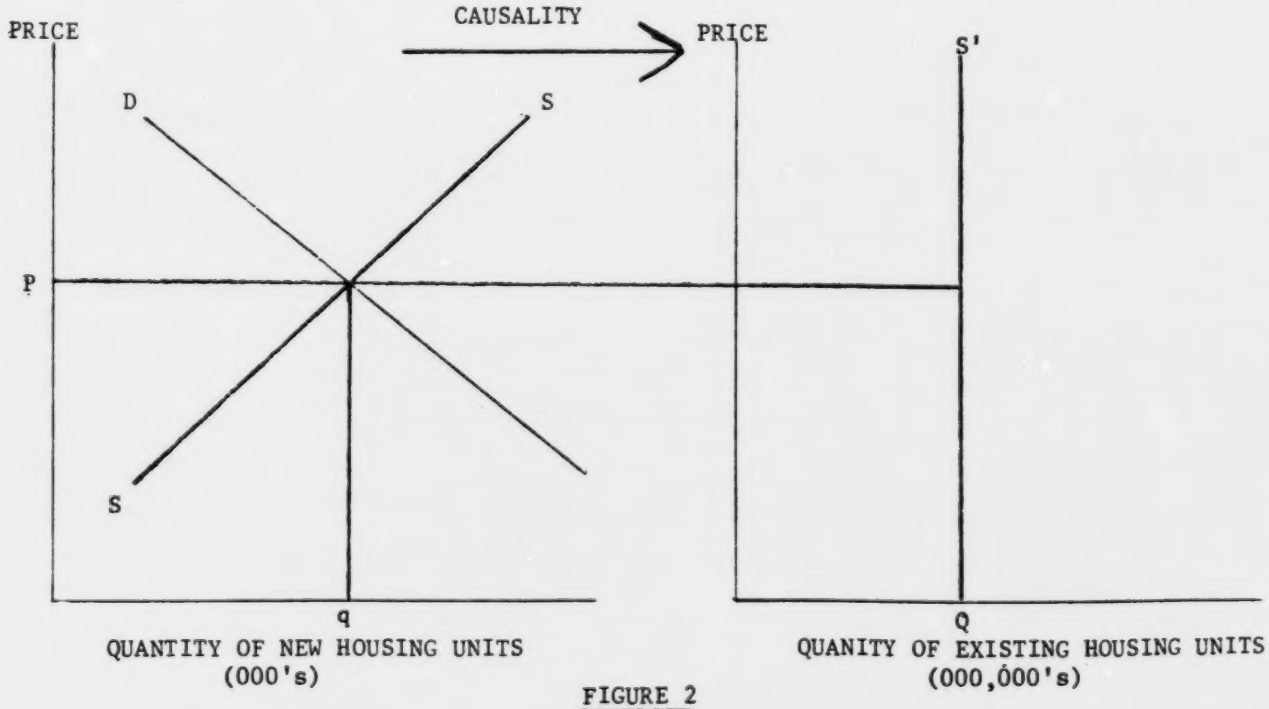

FIGURE 2

The Marginal-Cost Pricing Model of House Price Determination (MODEL II)

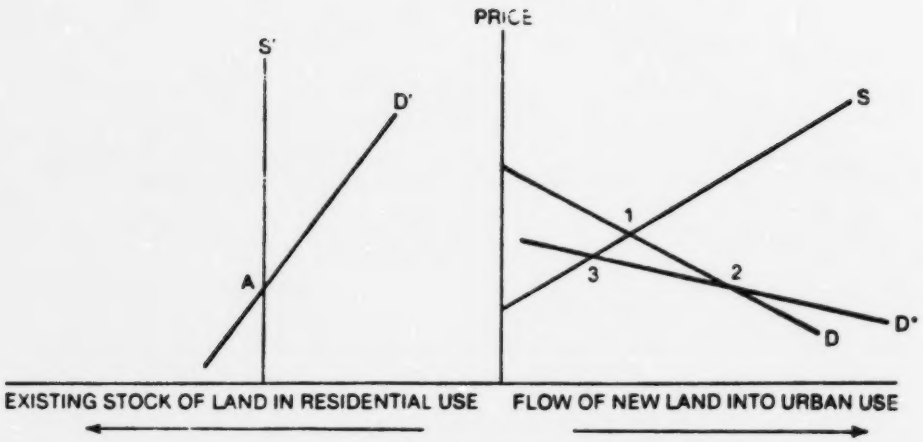

FIGURE 3

Hybrid Model of House Price Determination Showing Interaction of Stock and Flow (MODEL III)

(FROM: NOWLAN (1976), p. 31)

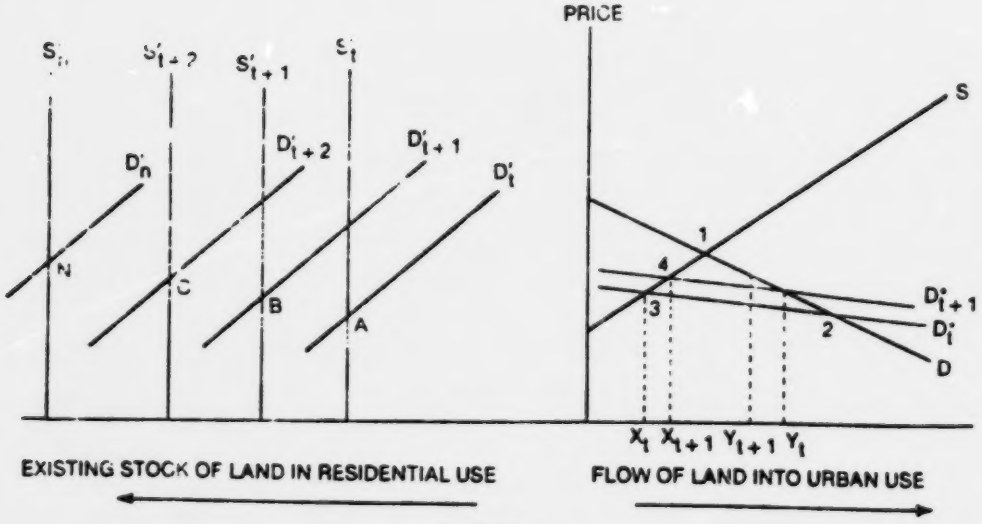

FIGURE 4

Hybrid Model of House Price Determination Showing Adjustment to Equilibrium Over Time (FROM: NOWLAN (1976), p. 33).

Nowlan's model shows that for prices above price A there is excess supply (insufficient demand) and as a result some of the demand from the market for new housing (Nowlan actually talks about land not housing per se) is satisfied out of the excess stock supply from the market for existing housing. As a result Nowlan constructs two demand curves for new land (housing), D (the demand from new entrants into the market) and D* (the demand adjusted for demand and supply conditions in the existing land (housing) market). Before proceeding it should be noted that the demand curve on the left hand side of Figure 3 is upward sloping since the origin lies to the right. Thus, the demand curve for the stock of existing land (housing) D' still has the correct property that higher prices imply lower quantities demanded.

To continue, price A corresponds to point 2 on the new demand curve. Thus in constructing the composite demand curve D* for prices above A the composite demand is lower than D (the demand for new land or housing) because some of this demand is being satisfied by the existing stock. However, for prices below A (lying to the right and below point 2) the composite demand is higher than D because at these lower prices there exists excess demand from the stock demanders and these people seek to satisfy their demand in the new land or housing market. Initially, equilibrium in the existing housing or land market is at A and in the new land or housing market at point 3 where effective composite demand D* intersects the supply curve of new land or housing S. In this way Nowlan ties the two markets together.

It is clear that in the longer run we cannot have a divergence between the prices for new houses (or land) and existing supply since they are both located in the same housing market in our example. Therefore in the longer

run prices must be equalized across these two markets. Figure 4 shows how this occurs in a series of steps until each year's addition to demand from new entrants eventually raise prices sufficiently so that at price N in the existing housing or land market, price exactly equals the price at point 1 in the new housing or land market. (Note we can realistically use land and housing interchangeably since both are durable and therefore the stocks of past periods of production add to each other so that in any given year the stock of existing land or housing is a very major element in the market place. Moreover, compared with this large extant stock, any single period's production is unlikely to be as much of 5% of the stock and therefore the stock dominates in the short run as in the Stock-Flow Model (Model I). However, production costs do matter over time and thus the hybrid model of Nowland captures these short and longer run interactions between the stock of existing land or housing and the flow of new land or housing onto the market in any given time period.)

All of the foregoing however deals in static terms. We now must introduce some dynamic notions and allow people's expectations about the future to come into play in the housing market. We can readily do this using any of the three models set out above as well as algebraically. We will start algebraically and then translate it directly into the terms of the models above.

Normally, demand is a function of price for the good or service under consideration (housing here), the prices of all other goods and services, and preferences for housing and all other goods and services. However, in the case of housing we must also add considerations about neighbourhoods (Bourne, 1981; Goetze, 1979; De Giovanni, 1983; Mark and Goldberg, 1982a and 1982b and Segal, 1979), and about expectations about both neighbourhood

change and the relative value of housing (Goetze, 1979 and Mark and Goldberg, 1982a). We can denote demand as:

$$D_H = f(p_H, p_G, P_H, P_G, N, HS, E_N, E_H, I, i, HH, E_{HH}, E_I, E_i) \quad (1)$$

Where:

D_H = demand for housing

P_H = price of housing

P_G = price of all other goods (the so-called composite good)

P_H = preferences for housing

P_G = preferences for all other goods

N = neighbourhood characteristics

HS = housing stock characteristics

E_N = expectations about future neighbourhood characteristics

E_H = expectations about future relative value of housing vis-a-vis other assets and expenditures

I = income

i = current interest rates

HH = number of households in market

E_{HH} = expectations about future number of households in market

E_I = expectations about future income levels

E_i = expectations about future interest rates

The list of factors that influence housing demand despite its length could be disaggregated further and made more detailed. The foregoing however is adequate to forcefully make the point that the demand for housing is a function of a number of current magnitudes and equally important of a number of expected magnitudes. Changes in these factors can change the

curvature, slope and location of the demand curve. For simplicity we will deal only with changes in location (e.g. up and down movements) as a response to changes in the factors that influence demand.

As a general proposition we can observe that factors which positively influence preferences for housing will shift the demand curve upward, while factors which make housing less attractive will move the curve downward. Increases in the numbers of households and their incomes will shift the curve upward while declining household numbers and rising interest rates will conversely shift the curve downward.

In this context we can see why expectations are so important. They can directly affect the level of demand. Should people have positive expectations about housing, about a particular neighbourhood, or about the numbers and incomes of people likely to move into a neighbourhood then demand can reasonably be expected to rise for housing in such a neighbourhood. The converse can also be expected to hold. Expectations play a vital role therefore in the demand for housing in a given market.

The role of expectations is even more central when we turn as we do now to consider investment behaviour both for new and for existing housing. Having discussed investment and reinvestment behaviour we can then return to our graphical models to analyze expectations and the impact of expectations on prices and profitability and investment attractiveness.

In simplest terms investors will invest if it pays for them to do so. More specifically, if the expected net present value of an investment exceeds the expected net present value for all other investments then the prospective investor will commit funds. Below, the ith investment will be made when it is more profitable than others.

$$E(NPV_i) > E(NPV_j) \quad \text{for all } j \neq i \tag{2}$$

where:

$E(NPV_i)$ = the expected net present value of the ith investment

$E(NPV_j)$ = the expected net present value of the jth investment

Turning to the case of reinvestment as opposed to new housing construction, we see that the owner/investor will allocate more funds to rehabilitation, renovation, or maintenance and repair of the existing stock if such an allocation yields the greatest expected return in net present value terms. We see immediately here that expectations about the future course of the housing unit and its neighbourhood are of great importance. Expectations not only include guestimates about the levels of such magnitudes as housing prices, incomes, and all of the other variables noted previously, they also include the riskiness or likelihood that these levels will be achieved. Thus if we look at the Net Present Value formula we see that expectations are important in both the numerator and the denominator:

$$E(NPV) = \frac{ENR_1}{(1+r)} + \frac{ENR_2}{(1+r)^2} + \ldots + \frac{ENR_n}{(1+r)^n} \tag{3}$$

where:

ENR_i = expected net revenue in the ith period, being a guestimate of anticipated revenues and expenses in the ith period

r = the discount rate, being a function of the interest rate, actual and anticipated inflation, and the riskiness of the investment

From equation (3) it is obvious that policies and expectations that increase anticipated revenues and decrease anticipated costs will increase the expected net present value of the investment. Similarly, policies and

environmental perceptions that decrease riskiness will lower the discount rate and also increase the expected net present value of the investment. Positive expectations therefore can have a dual effect on E(NPV) through raising ENR_i and lowering r. Negative expectations will conversely have a dual effect to lower the expected net present value, E(NPV).

One last element needs to be considered before summarizing this discussion graphically. The cost and availability of financing plays a pivotal function in the demand for housing and in establishing the attractiveness of the investment and reinvestment climate. Above we saw that interest rates are a basic element in the discount rate and therefore directly affect the expected net present value of the housing investment. However, the availability of financing (non-price factors) is also important. Periodically mortgage markets find themselves short of funds. We experienced such a period in the mid-1970's and there is some evidence that we are moving into a similar era currently. Perhaps more relevant than general shortages in mortgage funds are local shortages brought on by rationing policies by financial institutions. Such rationing can take the form of classic red-lining where whole neighbourhoods are deemed too risky for mortgage lending, or rationing can just be the result of specific branch offices having used up their allotted mortgage funds. In the event of any of these forms of non-price mortgage credit rationing we see an adverse effect on housing demand and investment. Housing is an extremely costly asset and few prospective owners or investors have the equity funds to purchase housing units outright. Mortgage credit is essential. In the absence of such mortgage credit a significant decline in demand can be expected. In the case of spatial credit rationing (red-lining) we can envision declines in effective demand with corresponding declines in

property values. Therefore, adequate credit is a necessary condition for moving potential demand pressures into the realm of effective demand.

Putting expectations and financing notions together and returning to our Hybrid Model III (from Nowlan) we can see the joint impacts on prices for new and existing housing of positive and negative expectations and favourable and unfavourable credit conditions. Figure 5 depicts two different cases: the case of positive expectations and/or favourable credit conditions; the case of negative expectations and unfavourable credit conditions.

First, consider the case of rising expectations and a positive credit environment. Assuming all else remains constant (the economists ubiquitous ceteris paribus), this raises demand for the existing stock from D'_1 to D'_2 with a corresponding increase in the price from A to B. Such an increase will tend to stimulate investors to reinvest in the stock since it is becoming more valuable and therefore worthwhile preserving. If we now go over to the new house market we see initially that equilibrium will be at price 1. Price 1 however is above both prices A and B and therefore owners and investors of the existing stock have a further incentive to maintain and improve the stock because new construction costs are higher and in the long run prices in both markets will have to settle at price 1.

In our second case we can consider the reverse sequence of events: tighter credit and falling expectations lead to a diminution in demand and demand falls from D'_2 to D'_1 with a corresponding drop in price from B to A. Such a decline in price creates an unattractive environment within which to invest and reinvest and it is unlikely that in this situation either new stock will be constructed or existing rehabilitated.

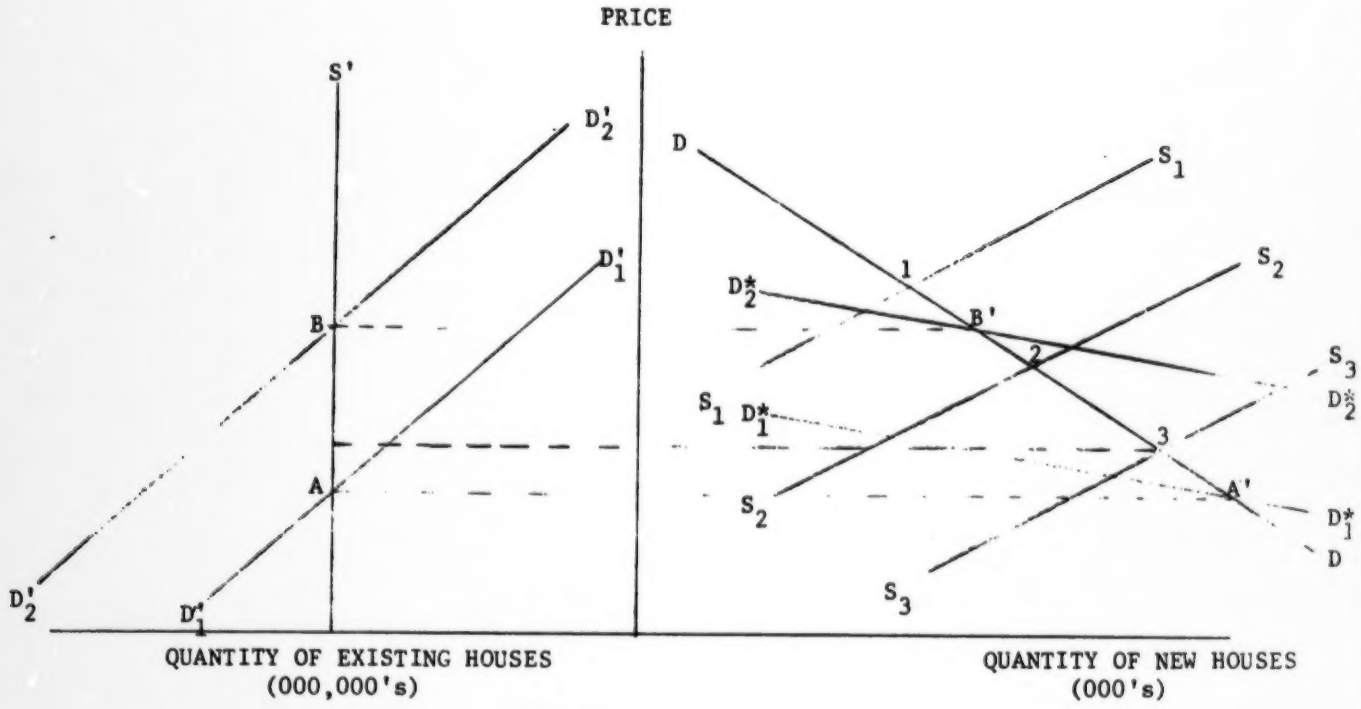

Figure 5

Impacts of Expectations and Construction Costs on Housing Prices

The last case to consider is that which results from continued lowering of construction costs. If construction costs decline from supply curve S_1 to supply curve S_3, the long run equilibrium price for both the stock and the new flow must decline from price 1 to price 3. If we started at stock equilibrium price B then this would result in a significant decline from B to C with the same kinds of effects on investment and reinvestment likely to occur as in the second case we just considered. In this case only if we started at prices in the existing market less than C could we reasonably expect to see prices and investment and reinvestment stabilize in the stock, to maintain the stock at a reasonable level of housing services. Therefore expectations about falling construction costs in the new house sector can have negative impacts on existing houses.

To conclude this discussion and summarize, we briefly reviewed three models of housing market operation to provide a framework for looking at the potential impacts of expectations on demand and price. We next set out simple conceptual models of demand for housing where expectations were made explicit so that we could consider the effects of positive and negative expectations on investment, reinvestment and price behaviour in both the new and existing housing markets. Finally, we saw that changes in expectations can seriously affect the demand for the standing stock of housing which is inelastic in supply. Therefore, expectation induced changes in the demand for the stock of existing housing translates directly into price changes which can set in motion additional expectations about the future course of prices of the existing stock and therefore reinforce these expectations, with the result that investment and reinvestment in the stock is either positively or negatively affected. Moreover, once these self-reinforcing expectations get mobilized it can be exceedingly difficult to reverse them as we see in the case of American central city decline (Norton, 1979).

III. Housing Market Dysfunction

There are two sources of dysfunction that we will consider. The first are traditional market imperfections wherein for various reasons current prices do not reflect true social or economic costs. The second source of dysfunctions derives from government induce imperfections arising from attempts to regulate urban land and housing markets, ostensibly to eliminate the abovementioned market imperfections. We discuss these in order.

Market Imperfections

There are four imperfections to be discussed here, each reasonably independent of the others.

1. Externalities and the Divergence Between Private and Social Costs: Certain classes of costs and benefits are not properly priced and as a result too much of the underpriced goods and services are produced while too few of the overpriced goods and services tend to be produced. Pollution is a classic externality where private producers of pollution impose costs on their neighbours and on society as a whole yet they are not themselves charged either partially or fully for these costs. Alternatively, developers who build particularly attractive structures and in the process beautify their surroundings create significant benefits for viewers and users of the buildings which are not usually recovered through higher rents.

2. Prisoner's Dilemma and Fallacies of Composition: There are also classes of market behaviour where the behaviours of individuals when aggregated lead to different outcomes from those of the individuals separately. The Prisoner's Dilemma is particularly relevant here when talking about housing rehabilitation. Assume all of the owners of housing in a given neighbourhood refuse to make needed maintenance and repair

expenditures until they are assured that their neighbours will do the same so that they can benefit from a general upgrading of the neighbourhood. However, it pays for every owner to wait until the other owners have made such expenditures so that each waits for the other and thus no one owner goes first. A related issue is that even after other owners have made expenditures it may then pay for the first owner not to make such investments and instead merely be a free-rider and benefit from the externalities induced by his/her neighbours. Housing markets are also prone to cycles in part due to fallacies of composition. In such fallacies of composition each owner or investor sees a market signal, such as rising rents in the case of housing, and each seeks to take advantage by expanding housing supply through new construction and renovation of the existing stock. While this is a rational strategy for the individual, when aggregated we find that all individuals acting in this way can create an oversupply of housing with a corresponding drop in rents so that the individual owner/investor might be worse off as a result of the initial rent rise and the subsequent supply glut. Similarly when the market is flat individual investors will each fail to enter the market thus leading to a shortage and then the ensuing glut. These two aggregation problems plague housing markets and lead to periodic divergence from optimal economic behaviours.

3. Information: Markets require information to function efficiently. However, in housing markets which are localized and spatially separable, and where households are relatively inexperienced at housing purchases and sales due to the infrequency of such transactions and their complexity, it is not reasonable to assume perfect flows of information. Therefore imperfections can arise in housing markets where information

imperfections can and often do exist. Such information blockages have been important in markets where racial discrimination is practiced and where minority groups are not privy to market information and therefore can both overpay and get reduced choice.

4. Supply Lags: One assumption built into the perfectly competitive model of markets which cannot be readily met in housing markets is the smooth and relatively speedy supply response flowing from a change in prices. In housing markets as we saw, supply is relatively inelastic in the short run so that increases in demand (which can occur with great speed) cannot be immediately countered by offsetting increases in supply. Rather, the instantaneous response is a price response not a supply response. Housing is an extremely complex good and service and it takes many months to get additional supply to the market in response to a price signal from the market. In fact, it might take several years for the market to catch up with particularly bouyant demand (as in the Hybrid Model III). This structural imperfection in the supply response means that lagged adjustment will occur and prices will decline only gradually as new supply comes onto the market.

Government Induced Imperfections in Housing Markets

In response to the previously discussed market imperfections, governments have frequently intervened into housing markets to help avert or soften the impact of these imperfections. We can therefore discuss these government induced imperfections in the context of the market imperfections that governments seek to overcome.

1. Externality-oriented Government Interventions: The principal devices used here are zoning and development controls. By carefully

regulating development it is argued negative externalities can be minimized and positive ones maximized. Building codes also try to internalize external costs that would result from faulty and dangerous construction practices. These attempts by government to internalize external effects create imperfections in their own right. In the case of zoning controls equilibrium prices and quantities are distorted with too much single family land and too little multi-family land generally being the result. In addition these restrictions also add to the lags in the supply response further impeding market adjustments.

2. Prisoner's Dilemma Motivated Government Interventions: In attempts to overcome prisoner's dilemma type problems governments often get involved in land assembly and renewal programmes, usually at some significant rate of subsidy. More recently, rehabilitation programmes have come to the fore to create neighbourhood externalities sufficient to induce indigenous investment and reinvestment to maintain and even upgrade the housing stock. Similarly, servicing and beautification schemes seek to provide these neighbourhood effects and so break out of the prisoner's dilemma. However, as with the previously discussed interventions, these interventions can also distort the normal functioning of the market and change owner expectations so that there may be overinvestment in neighbourhoods that should in fact be allowed to decay and make way for new uses, or alternatively underinvestment because owners await further government programmes to do what needs to be done.

3. Information Motivated Government Interventions: Two widespread government interventions are worth noting here. First, the licensing of real estate agents and also recently of mortgage brokers. Such licensing is intended to provide the public with some minimal level of information

quality through imposing standards on information brokers. While such policies are most often in the public interest they do have the affect creating imperfections in the markets for information agents and brokers since the supply of such agents and brokers is now restricted and the public may have restricted choice and overpay for such services as a result.

4. Supply Lag Induced Government Interventions: Because in the short run demand can fluctuate dramatically and with it prices (since supply is inelastic) governments have taken a series of actions to mitigate against such price increases. Most notable of these policies is rent control which attempts to regulate rents during periodic surges in demand until supply can catch up. Unfortunately , as is well known, these rent regulations make it less likely that there will be a supply response since without higher prices new supply is not likely to be forthcoming. Condominium conversion restrictions and anti-demolition by-laws further close loopholes for landlords trying to get out from under rent controls. These restrictions make it even less likely that offsetting supply will be put on the market. Inclusionary zoning is another recently employed device where governments require that a certain number or percent of new units must be directed toward lower income households who are particularly disadvantaged during price surges. Taken together these restrictions on market price (and investment profitability) adversely affect supplies because they create negative expectations about future returns to investors and also about the safety of investments since additional restrictions might be forthcoming as well in such an environment.

Summary Observations

Housing markets for a variety of reasons do not always function as in the ideal. Ironically however, many of the government interventions designed to improve market efficiency and responsiveness have the reverse effect and compound market imperfections making smooth market functioning even more difficult.

IV. Expectations, Perceived Risk and the Roles of Government Vis-a-Vis the Maintenance, Repair and Upgrading of the Housing Stock

Earlier we explored macro and micro environmental factors which affect housing investment and reinvestment. We also explored the roles of government in influencing these environmental factors. In the present section we focus on expectations and the role of government in affecting expectations about profitability and risk through the ability of government to affect these environmental factors. We can now start to put together the argument from its pieces. Given that governments play key roles in determining the macro and micro environments of housing (both new and existing), and given that these environments occupy central positions in the setting of expectations about profitability and risk in the maintenance and upgrading of the existing housing stock, we can trace through the impacts of government policies on expectations and perceptions of risk and therefore on investment and reinvestment behaviour by current and prospective owners of, investors in, the standing stock of housing.

Macro Factors in Expectation Formation and the Roles of Government

Three policy areas are of concern here: tax and fiscal policy; monetary and credit policy; and housing policy.

1. Tax and fiscal policy: Tax and fiscal policy has been far from neutral in its impacts on existing versus new housing. Up until very recently housing construction was seen as an important element in fiscal stimulation policies. Such advantaging of new housing, as we saw previously, has an adverse affect on the expectations about the viability of existing housing. Moreover, the frequency and magnitude of changes or threatened changes in tax and fiscal policy greatly increased perceived risk of holding the existing stock and therefore drove down the present value of the stock hindering investment and reinvestment in it accordingly. For example, the pervasive rumours about possibly taxing capital gains, and perhaps even imputed rents on housing, greatly increase the perceived risks of holding such assets and repetition of such rumours could influence some owners in marginal neighbourhoods to sell off their housing units to move into rental accommodation and pocket untaxed gains. If done by sufficient numbers of owners in marginal areas the impacts could be considerable. On investment housing, the artificial depreciation rates that are greatly in excess of actual physical depreciation rates on average, also promote new construction at the expense of proper maintenance and reinvestment in the existing housing stock. Thus, the macro tax and fiscal environment, to the extent that they promote new construction and not existing housing, can increase the actual and perceived risk of holding existing housing and discourage maintenance and upgrading.

2. Monetary policy: The affects of monetary policy (both easy and tight) on the existing stock of housing as opposed to new construction are not known. However, it is unlikely that both are affected to same degree and in the same way. For example, to the extent that easy money promotes new construction it could be seen to deter maintenance and improvement of

the existing stock. During tight money periods, the reverse might be expected to occur with new construction being hit harder and therefore people turning to the existing stock for relatively more housing services. As monetary policy fluctuates with disturbing frequency, periodically during eras of easy money and rapid new construction the standing stock of housing is likely to be depreciated and holders of existing housing will periodically face risks that their housing assets will be disadvantaged. Such riskiness, actual and perceived, again impacts negatively on holders of these housing units and on their willingness and ability to improve and/or maintain their units.

3. Housing policy: Quite clearly the impacts of the previous macro policies on housing were indirect. Not so with housing policy which obviously seeks to guide housing markets directly. Supply policies which promote new construction will impact negatively on existing housing and on expectations about the viability of existing housing as discussed above. However, supply policies that seek to increase the supply of housing services out of the existing stock (such as rehabilitation and improvement policies) may work to improve owner expectations by making such reinvestment in the existing more profitable. There is a caveat though. Should these policies change too frequently, then despite the clear advantage of such policies to the owners of existing housing units, the volatility of government policy would increase both the actual and perceived risk of benefiting from such policies and therefore might well undo the favourable features of such policies, since increased riskiness could more than offset increased profitability of reinvestment.

Demand side policies can also be seen as important elements in shaping expectations through shaping demand patterns. Policies aimed at increasing

demand for new housing units will clearly adversely affect existing housing and could set in motion negative expectations as outlined above. Demand stimulating policies that are aimed at both the new and existing markets should benefit the existing market and expectations about it if new construction implies housing units that are considerably more expensive than existing units and are located at greater distances from regional centres than is the existing housing stock. If new construction costs get lower and lower we saw that depreciation of the existing stock occurs and negative expectations ensue along with little or no investment/reinvestment and potentially even disinvestment.

Mortgage finance policy is another housing vehicle frequently employed by government. If government policy helps to eliminate spatial discrimination and allows the existing stock to participate in mortgage credit sources the benefits to the standing stock are obvious. If however, mortgage policies are directed primarily toward newer units and/or rationed for older neighbourhoods then the existing stock will be considerably more risky to hold, effective demand will be lower, price will decline and negative expectations are likely to set in with potentially very damaging effects to the proper maintenance and improvement of the stock.

Micro Factors in Expectation Formation and the Roles of Government

At the micro level, the level of the individual housing market, government has an enormous ability to shape expectations, minimize risk and promote healthy reinvestment in the existing housing stock. It also has the ability to do the reverse. Some specifics will illustrate the point.

1. Rent controls, condominium conversions and demolition restrictions: These policies are directed at the existing stock. They do

not generally directly affect new stock. As a result, they severely disadvantage owners of existing stock. They make holding such stock riskier since there is no guarantee that reasonable rent increases to keep abreast of cost increases will be allowed. They restrict the rights owners of the existing stock and thus make the existing stock less attractive than new stock, all of which depresses existing rental stock values and expectations and increases actual and perceived risk.

2. Zoning and Development Controls: Here again the ability of the standing stock to adapt to changing market conditions is impeded. Single use and inflexible zoning increases the risk to the owners of the standing stock in two ways. First, that they will not be allowed to adapt their housing to emerging market trends while others can. Second, zoning is unchanging until it changes. Therefore, owners who paid a premium for housing in properly zoned areas can have that premium erased quickly by major rezonings. The ability to change zoning clearly disadvantages the owners of the existing stock since the exclusive rights that they paid for can be taken away and given to others through rezoning in their neighbourhood or in competing neighbourhoods. Therefore, there is no reason to believe that zoning stabilizes neighbourhoods and minimizes risk. Rather it is much more likely that it enhances riskiness and therefore potentially lowers values for the existing stock vis-a-vis new product.

3. Transportation Policy and Investment: Transportation policies and investments have the power to greatly alter patterns of access and of land values and land uses. Whereas older centrally located housing may have had considerable locational advantage with the opening of major transportation investments that provide greatly heightened access to outlying areas, the locational advantage of older areas, with existing housing, is eroded. The

value of such older housing falls accordingly. Moreover, because of the ability of transportation improvements to disadvantage existing housing stock by bringing large quantities of previously inaccessible land into the housing market, transportation improvements can greatly increase the risk of holding existing housing, driving down yields and prices and setting in motion the kind of decline famous in older U.S. cities (de Lean and Enns, 1973). Large-scale transportation improvements therefore disadvantage the existing stock of housing and often work against other governmental efforts to rehabilitate and rejuvenate older areas.

4. Local Improvements and Amenities: In contrast to transportation investments, local improvements and investments in local amenities such as parks, community centres, libraries and schools and social and health services, can greatly improve the actual and perceived environment of older existing residential neighbourhoods. Such improvements will change the investment climate and increase demand for older housing which is located near such amenities and improved hard and soft services. Increased demand translates into stable or increased prices which in turn yield positive expectations, lower risk and indigenous investment and reinvestment to maintain and improve the existing housing stock in areas served by such improvements.

V. Conclusions and Policy Suggestions

The Argument Concluded

Favourable expectations, minimal actual and perceived risk and investor/owner confidence are prerequisites to owner/investor investment and reinvestment in the existing housing stock. In the absence of such a favourable investment climate both present and prospective owners and investors will seek to invest in areas where yields and risks are better.

Government has several key roles to play in creating such a favourable environment. First, government has enormous influence on the macro and micro environments within which housing markets function. By helping to create positive environments for the existing housing stock, positive expectations follow as do investment and reinvestment. Second, government must coordinate macro and micro environments so that existing housing is seen as a sound investment and thus attracts necessary maintenance and improvement capital. For example, loans and subsidies to rehabilitate and renovate existing and older housing are pointless if at the same time governments are subsidizing major new transportation improvements and new housing construction both of which drain demand away from existing housing areas and therefore defeat the rehabilitation programmes. Third, because of the scale of government policies, particularly at the macro level, but also at the lcoal level in some instances, it is essential that government policies do not change frequently. Change always carries with it the unknown and heightens actual risk and perceptions of risk. Therefore stability of government policy is most important if current and future owners of the existing housing stock are going to be able to form stable expectations about profits and risks. Without such stable expectations policies to promote rehabilitation and maintenance of the existing stock are bound to fail.

Some Specific Policy Strategies

1. Government policies should be highly diverse and recognize the highly localized nature of housing markets in Canada. Given the diversity of housing market conditions across Canada, trying to establish large-scale national policies and programmes are likely to be destabilizing

and harmful to the maintenance of the locally based stock of housing. Broad policy guidelines with great local flexibility are much more likely to work and to provide the environment within which stable expectations and investment behaviours can evolve and prosper.

2. Government policies should seek to ensure diversity in the housing stocks and among the households of local housing markets. Such diversity provides local housing markets with an in-built stability and ability to adapt that single-purpose housing does not possess. Diversity in housing types and household types allows the neighbourhood and the standing stock to absorb different households over time. A diversity of households also should allow the housing market to absorb better diverse economic shocks since the market is not overly dependent on households in any given age group or economic sector.

3. Government policies should seek to ensure maximum flexibility and adaptability of the existing stock to changing demographic and market conditions. Such flexibility will minimize the risk that the stock will be outmoded and inappropriate. It will increase the attractiveness of the stock to owners and investors and therefore provide for proper maintenance. Flexible zoning and building codes could help greatly here.

4. Government policies must acknowledge that the existing stock of housing is closely linked to new housing and take care not to disadvantage the standing stock in the desire to open up new residential areas and to build new housing. Attempts to lower housing costs and provide new supplies may very well be self-defeating by severely hurting the ability of the existing stock of housing to supply housing services. Adverse effects of policy on the existing stock will only

call forth the need for more expensive new housing as older housing is allowed to deteriorate and eventually be abandoned as has been the case in many U.S. cities.

5. Government policies must be more modest than in the past, they must be smaller in scale, changed less frequently, and have more limited goals. Given the awesome ability of government to influence the housing environment, and given the great importance of stable expectations, it is imperative that government not act to destroy the stability of investor expectations through the frequent implementation of relatively large-scale programmes. (See Cullingworth, 1979 and Rose, 1980 for inventories of the diversity of government programmes and changes to them). Both AHOP and MURB programmes of the 1970's are cases in point. The on-again off-again nature of these programmes and of changes to them made it extremely difficult for investors to develop stable expectations. The necessity for such stability has been noted throughout and government has a vital responsibility to create stable environments so that private investment funds can flow to maintain the scarce and valuable stock of existing housing. Ambitious but volatile programmes do not promote such stability. More modest and tightly targeted policies, directed at the local level with an explicit goal of minimal disruption of the investment climate do enhance stability and can call forth significant private funds, relieving government of much of its burden and further providing the positive investment climate that is needed to protect and promote the existing housing stock.

Closing Comment

In the end, society is best served by a healthy and diverse housing stock that can cater to the diverse and changing needs of the Canadian population. Government can help to promote such a high quality stock by carefully mixing policies that promote new construction to take care of growth and replacement, and also policies that maintain the existing stock in its best use to serve existing residents. Flexible and diverse housing stocks and flexible and diverse housing policies can provide for the current population and the emerging needs of future generations in a cost-effective and socially dignified and responsible manner. Government has in fact sought to do just this and the foregoing analysis and discussion is furnished with an eye toward amplifying certain issues so that government can achieve the objectives of a high quality, flexible, diverse and well maintained stock of housing.

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